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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
BARQADLE, YASIN M	

ART UNIT	PAPER NUMBER
2153	

DATE MAILED: 05/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/734,040	VILANDER ET AL.	
	Examiner	Art Unit	
	Yasin M. Barqadle	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 September 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-58* is/are pending in the application.

4a) Of the above claim(s) *11 and 28* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10, 12-27 andf 29-58* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment

1. The amendment filed on September 02, 2004 has been fully considered but are not deemed to be persuasive.

- Claims 1-0, 12-27 and 29-58 are presented for examination.

Response to Arguments

In response to Applicant's arguments in page 19, last paragraph that "there is nothing in Toperek to teach or suggest utilizing an Internet protocol over a link layer protocol" Examiner contends the Toporek teaches utilizing an Internet protocol over a link layer protocol as clearly shown in Fig. 2, where the IP layer 227 is over the link layer 225. Also col. 7, lines 44-48. Further more, For IP to run over the Data link layer is an inherent feature of the TCP/IP protocol stack in both the seven layers of the OSI model and the five layers of the TCP/IP model). See also Menths page 2, paragraphs 1-2 and page 4, paragraphs 1-2.

In response to Applicant's arguments in page 20, first paragraph that "Applicant is unable to ascertain how Toporek et al allegedly teaches UDP Protocol" Examiner would like to point out the Applicant col. 6, lines 2-5 where Toporek teaches that

server and the Internet communication occur in a common protocol such as TCP/IP or UDP/IP.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

1. Claims 1-12,17-18-27,29,35-40,42-46, and 51-55 are rejected under 35 U.S.C. 102(e) as being anticipated by Toporek et al USPN (6654344).

As per claim 1, Toporek et al teach a telecommunications system having a replacement protocol architecture over an interface between nodes of the telecommunications system (Fig. 2), the interface being one over which Asynchronus Transfer Mode (ATM) and ATM adaptation layer 2 (AAL2 protocols are conveniently employed as transport layer protocols [the transport protocol XTP of the invention requires that the underlying data delivery service (layer 2 protocols such as ATM, MAC or AAL5) provides framing and delivery of packets from one host to another col.8, lines 20-35], the replacement protocol architecture including, in lieu of ATM and AAL2, Internet Protocol as a protocol above a link layer protocol (Fig. 2, IP layer 227 over link layer 225), wherein the interface is one of (1) an interface between a core -network and a radio access network which carries circuit switched connections; (2) an interface between a radio network controller (RNC) and a base station; and (3) an interface between two radio network controllers (RNCs) [see fig. 2, and col. 3, lines 1-13].

As per claim 2, Toporek et al teach the system of claim 1, wherein the Internet Protocol is immediately above the link layer protocol in the transport network layer [Fig. 2, see satellite gateway 203, layer 23-229].

As per claim 3, Toporek et al teach the system of claim 1, wherein the interface carries a circuit switched connection (fig. 2; col. 10, lines 29-65), and wherein a protocol stack of the protocol architecture in the transport network layer comprises:

the link layer protocol [fig. 2, layers 225]; the Internet Protocol on top of the link layer protocol [fig. 2, layers 229];

UDP Protocol on top of the Internet Protocol [fig. 2, layers 227 and col. 10, lines 33-65, it is an inherent feature of the tcp/ip].

As per claim 4, Toporek et al teach the system of claim 3, wherein the link layer protocol is Ethernet protocol [col. 6, lines 6-15].

As per claim 5, Toporek et al teach the system of claim 4, wherein in the Internet Protocol a sequence number is carried in one of an IP option field and a Ipv6 extension header, the sequence number being used for rearranging incoming IP datagrams [fig. 2; col. 7, lines 59 to col. 8, line 45].

As per claim 6, Toporek et al teach the system of claim 3, wherein the protocol stack of the protocol architecture further

comprises, in a radio network layer, a frame handling protocol on top of the UDP Protocol [col. 11, lines 46 to col. 12, line 13].

As per claim 7, Toporek et al teach the system of claim 6, wherein the frame handling protocol rearranges incoming frames over the interface which carries a circuit switched connection [fig. 2; col. 10, lines 29-65].

As per claim 8, Toporek et al teach the system of claim 7, wherein the frame handling protocol includes a sequence number field used for rearranging incoming frames [col. 7, lines 59 to col. 8, line 35 and col. 9, lines 29-45].

As per claim 9 and 17, Toporek et al teach the system of claim 1, wherein the protocol stack of the protocol architecture in the transport network layer comprises:

the link layer protocol [fig. 2, layers 225]; the Internet Protocol on top of the link layer protocol [fig. 2, layers 229];

UDP Protocol on top of the Internet Protocol [fig. 2, layers 227, col. 6, lines 2-5]; and

a user plane protocol on top of the UDP Protocol [fig. 2 and 2A; col. 11, lines 46 to col. 12, line 23. col. 6, lines 2-5], the user plane protocol comprising user plane data packets

which are borne in an IP datagram each user plane data packet having:

a connection identifier field; a sequence number field; a length field; and a payload (these are inherent features of data packets found in the XTP,TCP/IP header col. 8, lines 20-35 and col. 11, lines 45 to col. 12, line 23).

As per claim 10, Toporek et al teach the system of claim 9, wherein the link layer protocol is Ethernet protocol [col. 6, lines 6-15].

As per claim 12, Toporek et al teach the system of claim 9, wherein plural user plane data frames are multiplexed in one IP datagram [fig. 2A and col. 11, lines 46-67].

As to claims 18-27 and 29, these are method claims corresponding to claims 1-10 and 12. Therefore, they are rejected with the same rationale.

As to claims 35-40, see Toporek [col. 7, lines 59 to col. 8, line 35 and col. 9, lines 29-45].

As to claims 42-46 and 51-55, these claims have similar limitations as to claims 2-6. Therefore, they are rejected with the same rationale.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 13-16,30-34,41,47,50 and 56-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toporek et al USPN (6654344) in view of Michael Menth, Report No. 247 (hereafter "Menth").

As per claims 13 and 14, Toporek et al teach the system of claim 1, wherein the protocol stack of the protocol architecture in the transport network layer comprises:

the link layer protocol [fig. 2, layers 225];

the Internet Protocol on top of the link layer protocol [fig. 2, layers 229];

UDP Protocol on top of the Internet Protocol [fig. 2, layers 227]; and

Although Toporek et al shows substantial features of the claimed invention, he does not explicitly show an RTP protocol on top on top of UDP Protocol.
Nonetheless, this feature is well known in the art and would have been an obvious modification of the system disclosed by Toporek et al, as evidenced by Menth Report No. (247).
In analogous art, Menth whose invention is about carrying wireless traffic over IP using Realtime Transport Protocol discloses an RTP protocol on top of a UDP Protocol [page 1, introduction and page 4, paragraph 1]. Giving the teaching of Menth, a person of ordinary skill in the art would have readily recognized the desirability and the advantage of modifying Toporek et al by employing the Menth's RTP over UDP in order to maximize cellular mobile communications by reducing header overhead.

Menth further teaches a UAL2 Protocol on top of the UDP Protocol, wherein the UAL2 protocol each UAL2-PDU carries an

integer number of AAL2 packets [page 2, paragraphs 1-2 and page 4, paragraphs 1-2].

As per claim 15, Menth teaches the system of claim 14, wherein the interface is between a radio access network and a core network, and wherein in the RTP Protocol one synchronization source (SSRC) identifier is allocated to each circuit switched connection between the node in the radio access network and the node in the core network [fig. 1 and page 4, paragraphs 1-4].

As per claim 16, Menth teaches the system of claim 14, wherein the RTP Protocol compresses plural RTP packets in an IP datagram [page 1, abstract].

As to claims 30-34, these are method claims corresponding to claims 13-17. Therefore, they are rejected with the same rationale.

As to claim 41,47, 50 and 57, these claims have similar limitations as claim 1 combined with 14 and 15. Therefore, they are rejected with the same rationale.

As to claims 56-58, these are method claims corresponding to claims 47-49. Therefore, they are rejected with the same rationale.

Conclusion

2. **ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yasin Barqadle whose telephone number is 571-272-3947. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on 571-272-3949. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Yasin Barqadle

Art Unit 2153

Dung C. Dinh
Primary Examiner